

Down to Earth



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Message from the director:

Seasons of Life – How to Prepare Yours’ Now for the Future You Want

Like the earth goes through the 4 seasons – spring, summer, autumn, and winter – we as human beings, go through the 4 seasons of life too. But too bad, many people ignore the seasons that they’re going through in each stage of their lives, until one day, when they realize it, they are already in the winter season, which is a little bit too late to make a change. If you want things to grow, you plant in the springtime, and then you cultivate in the early summer, and you reap in the fall. And even the winter, as it comes with its cold, prepares the way for another springtime.

Spring teases us, playing its own game of “catch and release” A few balmy, sunny days awaken our senses to freshness of spring air and promise the end of winter. Our lives have winters, don’t they? We live to seasons where we feel cold, hidden, and trapped. We feel buried under the snow of circumstance with an absence of clarity, warmth, and light. But when we look closer, perhaps we could see the rushing of the clouds, the gilded outlines that promise there is hope just past them. And though winter can be long, the moment when the sun returns will be worth it all.

Perhaps, we are in the midst of one of life’s winters. We will remember that for every winter there is a spring. For every person, there is strong Creator as we press in to Him, He will come to us like a sun rushing from behind the clouds. We have only to wait, hope, and to look for Him.

Have a safe winter everyone!!! Stay Safe and Healthy Everyone!!!



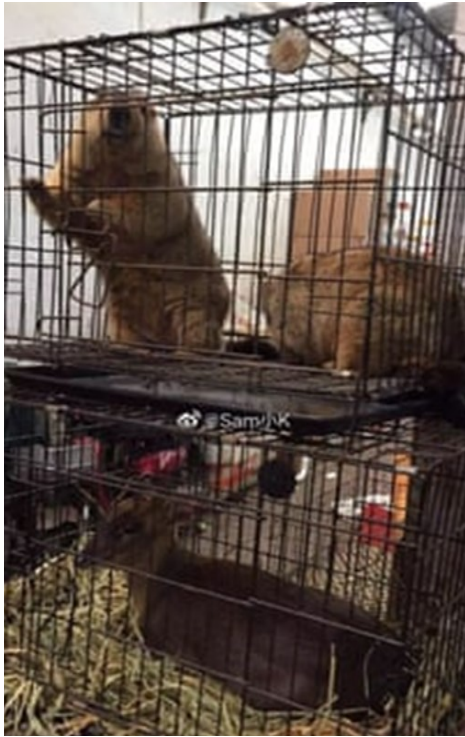
Preserving of Wildlife Habitat and Adapting Climate Change Will Protect Humans Health.

Nestoria Wright

Our environment newsletter brings you the key Headlines, Perspectives, Questions, debate and analysis of what is going in the world and our Mother Earth.

There are a number of ways that climate change is beginning to impact wildlife. Temperature increases and changes in precipitation can directly affect species depending on their physiology and tolerance of environmental changes. Climate change can also alter a species' food supply or its reproductive timing, indirectly affecting its fitness. Understanding these interactions is an important step in developing management strategies to help species survive the changing climate.

It can be hard to keep track of all the latest environmental developments, from changes in the natural world to eco-activism. Nature is sending us a message with the coronavirus pandemic and the ongoing climate crisis, according to the UN's environment chief, Inger Andersen.



Wild animals sold at the Wuhan Huanan seafood market in China, linked to first cases of the coronavirus pandemic. Photograph: Courtesy of SAM K/Weibo



Sonny Fee
Solid Waste Coordinator

Composting Update

This month I have been working on getting my composting site built up, Thanks to Kickapoo Roads department for donating the large concrete barrier blocks for my enclosure.

I have not had a lot of food / veggies to add to the composting due to senior citizens not having meals at the site, only delivery. I have been collecting leaves to add as needed as well as finely shredded paper some old onions and minimal fruit and melons too.



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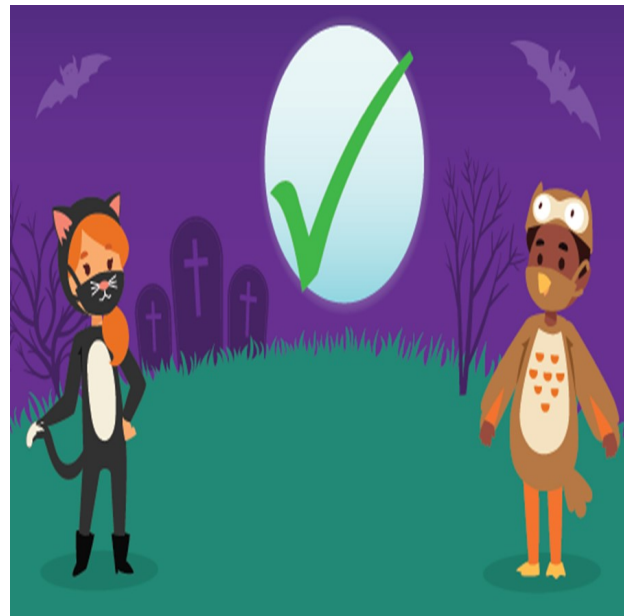


Wear a Mask!



Make your cloth mask part of your costume.

- A costume mask is **not** a substitute for a cloth mask.
- Do **NOT** wear a costume mask over a cloth mask. It can make breathing more difficult.
- Masks should **NOT** be worn by children under the age of 2 or anyone who has trouble breathing
- Make sure to remain socially distanced as much as possible (at least 6 ft.)



Wildlife depends on healthy habitats. They need the right temperatures, fresh water, food sources, and places to raise their young. Climate change is altering key habitat elements that are critical to wildlife's survival and putting natural resources in jeopardy.

Andersen said humanity was placing too many pressures on the natural world with damaging consequences, and warned that failing to take care of the planet meant not taking care of ourselves.

Leading scientists also said the Covid-19 outbreak was a “clear warning shot”, given that far more deadly diseases existed in wildlife, and that today’s civilization was “playing with fire”. They said it was almost always human behavior that caused diseases to spill over into humans.. “But our long-term response must tackle habitat and biodiversity loss,” she added. “Never before have so many opportunities existed for pathogens to pass from wild and domestic animals to people,” she told the Guardian, explaining that [75% of all emerging infectious diseases come from wildlife](#).

“Our continued erosion of wild spaces has brought us uncomfortably close to animals and plants that harbor diseases that can jump to humans.”

To prevent further outbreaks, the experts said, both global heating and the destruction of the natural world for farming, mining and housing have to end, as both drive wildlife into contact with people.

They also urged authorities to put an end to live animal markets – which they called an “ideal mixing bowl” for disease – and the illegal global animal trade.

Andersen, executive director of the UN Environment Program said the immediate priority was to protect people from the coronavirus and prevent its



References:

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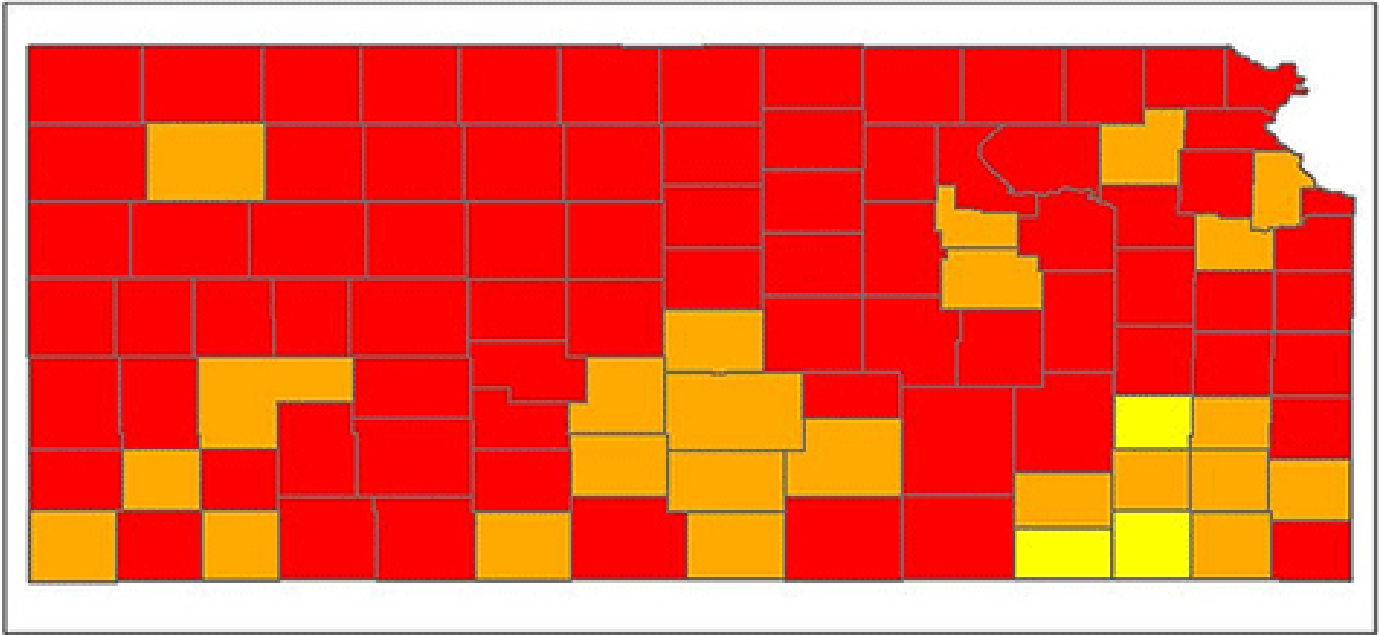
Radon Testing for the Kickapoo Tribe

Chance Bentley
Air Quality Coordinator

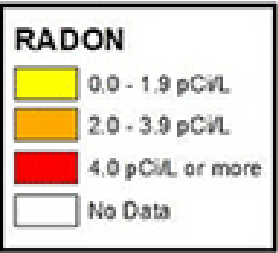
Kickapoo Environmental Office Radon Program

The KEO is proud to announce that beginning December 2020; we will be offering radon testing and consultation free of charge to all tribal members. Our Air Quality Coordinator will conduct this testing in collaboration with the Environmental Protection Agency (EPA) Region 7, the Institute for Tribal Environmental Professionals (ITEP), and the Tribal Air Monitoring Support Center (TAMS). The testing will be conducted to locate areas with elevated radon concentrations and will provide residents with recommendations and assistance to mitigate these issues. If you are interested in this free service, please email (kickapoo.chance@gmail.com) or call (785-340-5633) our Air Quality Coordinator for more details.

Kansas Radon Levels by County (2019)

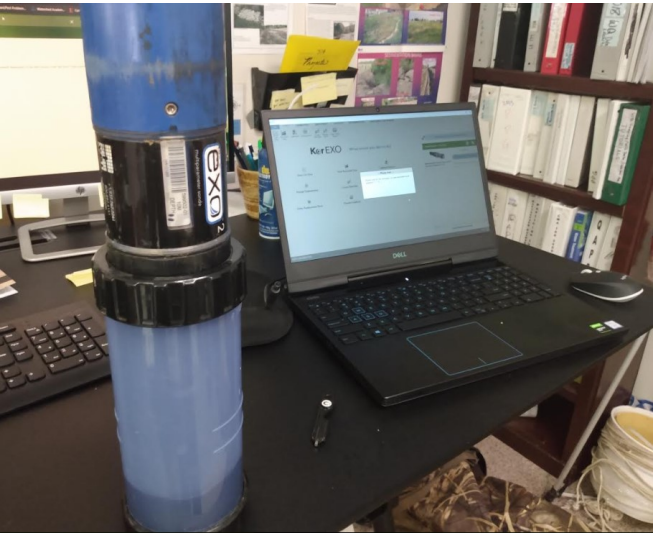


Average Radon Level = 4.6
Maximum Reported Radon Level = 1,121.6
Total Number of Measurements = 161,690
Total Measurements 4 pCi/L or greater = 62,555
Total Measurements 20 pCi/L or greater = 3296
Total Est. Mitigations (2005-2018) = 33,066



<https://www.ksre.k-state.edu/news/stories/2018/12/national-radon-month.html>

Below is a picture of the stream gauge that was taken out of the Delaware river at the time of the K20/Pow Wow Grounds Bridge project. David was able to get it back up and running, connected to the Water Quality Laptop and is currently working on re-calibrating the probes. Things are looking very successful so far, although the KEO is still working to acquire the necessary reagents to the phycocyanin .



The image to the right shows what a phycocyanin probe looks like. This instrument helps the tribe determine the presence of Harmful Algal Blooms (HAB's) in the river.



Maintenance of our water quality equipment is very important to the Kickapoo Environmental Office. David is shown here calibrating the Tribe's water quality PRO DSS instrument.



This instrument is used to monitor water quality around the reservation. Feel free to drop into the office for a full explanation of how this instrument works!

Water Quality Testing and Stream Gauge/Sonde Maintenance

David Hebert, M.S.
Water Quality/NPS Coordinator



Water Quality Samples were dropped off at KHEL: This month, 50 water quality samples from surface water monitoring locations were dropped off at Kansas Health and Environment Laboratory to test for fertilizer, sediment, metals and pesticides.



Here is David collecting grab samples to send to the laboratory.



What is radon?

Radon is a naturally occurring gas that cannot be seen or smelled. It primarily comes from a region's underlying geology that can enter your home through the water system, structural cracks, and piping.

What is an acceptable level of radon?

There are no federal regulations for radon levels, and states vary markedly with their radon guidelines. The lower the concentration of radon, the better. However, the EPA denotes **<4.0 pCi/L - (4.0 picoCuries/Liter of air)** as the recommended intervention level.

Why should you be concerned?

Prolonged exposure increases the potential for lung cancer. Smoking habits compound these risks. At risk populations (i.e., children, seniors, health risk populations) should be especially considered when assessing radon risk.

Radon in Brown County.

According to AirChek (<https://www.radon.com/maps/>), the average radon level for brown county is 5.6 pCi/L, with ~34% of the radon tests conducted in the region measuring above 4.0 pCi/L.

